7 ORIGIN DETERMINATION	Page 1 of 1
Division of Forensic Science	Amendment Designator:
BLOODSTAIN PATTERN ANALYSIS TRAINING MANUAL	Effective Date: 15-October-2004

7 ORIGIN DETERMINATION

7.1 Objectives

- 7.1.1 To understand the validity and usefulness of a source of origin determination in case work.
- 7.1.2 To understand the multiple ways to determine and/or document a three dimensional blood source and to be able to discuss the advantages & disadvantages of these techniques.

7.2 Method of Instruction

- 7.2.1 Lecture and Discussion
 - 7.2.1.1 String Reconstruction of an Impact (see Section 7 in the Bloodstain Procedures Manual)
- 7.2.2 Literature References
 - 7.2.2.1 Kercheval, J., "Basic Bloodstain Concepts for area of Origin Calculations...Part 1" MAAFS Newsletter, April 1999 Vol. 27, No.2
 - 7.2.2.2 MacDonell, H. L., "Bloodstain Patterns, No More Strings, No More Computer, Just Simple Mathematics, That's all it Takes", Laboratory of Forensic Science, Corning, New York, 1993, pp 35-42.
 - 7.2.2.3 Griffin, T. J. and Anderson, J. W., "Out on a Tangent with Bloodstain Pattern Interpretation", February 21, 1993
 - 7.2.2.4 Podworny, E. J. and Carter, A. L., "Computer Modeling of the Trajectories of Blood Droplets and Bloodstain Pattern Analysis with a PC Computer", IABPA Training Conference, 1989.
 - 7.2.2.5 Bevel, T. and Gardner, R. M., <u>Bloodstain Pattern Analysis</u>, Chapter V Bloodstain Mathematics, New York, CRC Press. 1990
- 7.2.3 Training Tools
 - 7.2.3.1 Wilson, F. E. and Schuessler, D., "Automated Geometric Interpretation of Human Bloodstain Evidence"
- 7.2.4 Evaluation & Exercises
 - 7.2.4.1 After reading the articles packet (Literature Reference 7.2.2), be prepared to discuss the validity and usefulness of a source of origin determination in case work. Review the multiple ways to determine and/or document a three-dimensional blood source and be prepared to discuss either advantages or disadvantages.

In order to better prepare for an eventual moot court situation, as well as, future crime scene work, practical exercises will be incorporated into the bloodstain analyst training curriculum. The trainee will be given an impact pattern to string back to a source of origin. Documentation to be turned in should include: (1) descriptions of the stain pattern, (2) the measurements and mathematical figures for your chosen ten stains, (3) the height, distance from an adjacent wall, and the range from a wall for the blood source, and (4) the mathematical workup validating the source location utilizing the tangent method on three. The discussion will follow upon completion of the hands-on exercise.